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Changes in the Cost of Living July, 1914 - Nov. 1919

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Changes in the Cost of Living

July, 1914 — November, 1919

Research Report Number 25
December, 1919

National Industrial
Conference Board

National Industrial Conference Board

15 BEACON STREET, BOSTON, MASS.

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724 SOUTHERN BUILDING, WASHINGTON, D. C.

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CHANGES IN THE COST OF LIVING

JULY, 1914—NOVEMBER, 1919

RESEARCH REPORT NUMBER 25

DECEMBER, 1919

Copyright, 1919

NATIONAL INDUSTRIAL CONFERENCE BOARD

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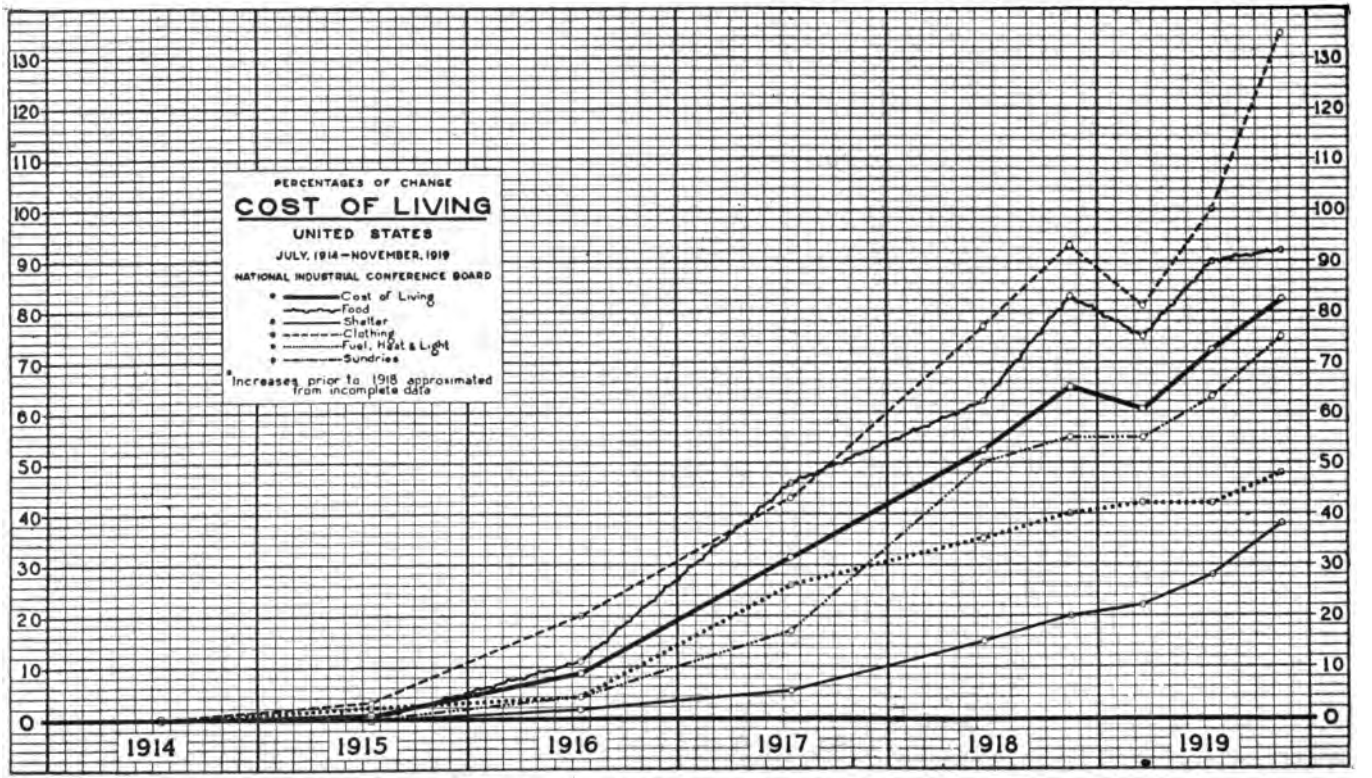
Foreword

THE present report on changes in the cost of living, the fifth issued on that subject by the National Industrial Conference Board, covers the period from the outbreak of the war in 1914 to November, 1919.

As in the case of preceding reports in this series, the findings presented are general averages, broadly representative, but not necessarily applicable to individual communities unless allowances are made for possible local deviations from the averages shown for the entire country.


PERCENTAGES OF CHANGE
COST OF LIVING
UNITED STATES
JULY, 1914—NOVEMBER, 1919
NATIONAL INDUSTRIAL CONFERENCE BOARD
Cost of Living
Food
Shelter
Clothing
Fuel, Heat & Light
Sundries
*Increases prior to 1918 approximated from incomplete data
130
120
110
100
90
80
70
60
50
40
30
20
10
0
1914
1915
1916
1917
1918
1919

Changes in the Cost of Living

July, 1914—November, 1919

INTRODUCTION

The National Industrial Conference Board has published four reports on changes in the cost of living the country over since 1914.[1] In this, the fifth on that subject, are shown the advances from July, 1914, to November, 1919, in the cost of the major items entering into the budget of the average wage-earner's family and of these items combined; also the advance in cost between July, 1919, and November, 1919.

From an examination of the chart on the opposite page, and from the figures presented in the succeeding pages, it appears that average prices of most articles comprising the family budget had continued to rise since the previous study in July, 1919. Moreover, the opinion was general among those entitled to speak with authority, that for some items, particularly rents and retail prices of clothing and certain sundries, the highest points had not yet been reached.

In assembling material for this report, co-operation was secured from the same or similar agencies which had reported to the Board for the earlier studies of changes in the cost of living. Replies to questionnaires were received from a large and representative number of retail dealers in clothing, furnishings and fuel; changes in rents and carfares were also ascertained through answers to questionnaires sent to persons in many sections of the country representing a wide variety of interests. For food prices, the United States Bureau of Labor Statistics index numbers were again used as the basis for estimating changes.

Changes in the cost of the separate budget items having been thus established, each increase was given a weight proportionate to the importance of the item in the total

[1]National Industrial Conference Board, Research Reports Nos. 9, 14, 17, 19.

budget, and, thus combined, the increase in the cost of living as a whole was obtained.

In all of the Board's investigations of changes in the cost of living, retail prices in the summer of 1914 have been accepted as the base or starting point, and subsequent changes have been estimated, so far as it was possible to do so, with reference to the standard which then prevailed.

The figures given are in all cases general averages based on a large amount and variety of data reflecting conditions in representative communities all over the United States. Since these conditions inevitably vary somewhat as between different localities and even as between different groups within a given locality, it may be necessary to modify somewhat these general estimates in using them to meet the requirements of particular cases. With the material given as a broad basis, however, necessary local modifications may readily be made.

I

FOOD

The average retail price of food in November, 1919, was 92% above the pre-war level. The increase between July, 1919, and November, 1919, was only 1%, which is a smaller rise than usually occurs in normal years between summer and winter prices and is substantially less than occurred between July and November in either of the three preceding years. In July, 1919, food prices had reached their highest point up to that time. Although they continued to rise in August, they fell in September, and did not change in October.[1] The increase between July, 1919, and November, 1919, is less than the increase in the cost of any other major item in the budget.

Index numbers of retail food prices as compiled by the United States Bureau of Labor Statistics for each month from January 15, 1913, to November 15, 1919, inclusive, are given in Table 1. Average prices for the entire year 1913, which are representative of prices just before the war, are taken as 100 and prices at other periods are expressed in relation to this base price.

TABLE I: RELATIVE RETAIL PRICES OF FOOD IN THE UNITED STATES, JANUARY 15, 1913, TO NOVEMBER 15, 1919, INCLUSIVE

Average price for the year 1913 = 100
(United States Bureau of Labor Statistics)

Month	1913	1914	1915	1916	1917	1918	1919
Average for the year	100	102	101	114	146	168	...
January	98	104	103	107	128	160	185
February	97	101	101	106	133	161	172
March	97	99	98	107	133	154	175
April	98	97	99	109	145	154	182
May	97	98	100	109	151	158	185
June	98	99	100	112	152	162	184
July	100	102	100	111	146	167	190
August	101	107	100	113	149	171	192
September	102	107	101	118	153	178	188
October	104	105	103	121	157	181	188
November	105	105	104	126	155	183	192
December	104	105	105	126	157	187	...

[1] *Monthly Labor Review*, November, 1919, pp. 131-133. Index numbers for October and November were furnished by the United States Bureau of Labor Statistics in advance of publication in the *Labor Review*.

By comparing the index numbers for any two dates, as shown in this table, changes in retail food prices within a given period may readily be obtained. Thus, between June, 1918, and November, 1919, the increase was 18.5%; between November, 1918, and November, 1919, it was 5%; between March, 1919, and November, 1919, it was 10%; between July, 1919, and November, 1919, the change, as already indicated, was practically negligible.

During the year from November, 1918, to November, 1919, inclusive, the largest increase in food prices in any of the 50 cities from which the Bureau of Labor Statistics secures quotations was reported from Minneapolis, where the advance was 11%. In three cities, Baltimore, Md., Newark, N. J., and New Haven, Conn., there were decreases.

Among the largest increases reported in the cost of food in November, 1919, as compared with average prices before the war, were: in Birmingham, Ala., 104%; Memphis, Tenn., 102%; Richmond, Va., Detroit, Mich., Charleston, S. C., 101% each; Washington, D. C., 100%. In Baltimore and St. Louis, retail food prices advanced 99% each in this period; in New York, 95%; in Chicago, 94%; in Philadelphia, 92%; in New Orleans, 90% and in Boston, 89%. The smallest increase was reported from Los Angeles, 70%; in San Francisco it was 77%.

For the separate items, the greatest price increases occurring between November, 1913, and November, 1919, were: sugar, 131%; lard, 129%; flour, 124%; corn meal, 113%; potatoes, 105%; bread, 104%; rice, 102%.

Articles which increased in price in the year ending November 15, 1919, were: onions, 73%; prunes, 64%; coffee, 55%; raisins, 44%; rice, 26%; potatoes, 18%; sugar, 16%; canned salmon and storage eggs, 14% each; butter, 13%; flour, 10%; strictly fresh eggs, 9%; fresh milk, cheese and lard, 6% each; tea, 5%; bread, 4%; and corn meal, 2%.

Articles of which the average price decreased during the year were: navy beans, 24%; plate beef, 18%; bacon, 13%; chuck roast, 12%; round steak and rib roast, 6% each; lamb, 5%; ham, 4%; sirloin steak and pork chops, 3% each.

From this enumeration of changes in the cost of the separate articles of food, it is evident that significant

decreases had recently occurred in the cost of some of the most important items. It is too early to predict, however, regarding the future course of food prices. Although the November, 1919, prices were the highest yet recorded, they showed no advance over August, 1919, when this high level was first reached. Whether or not this circumstance reflects a permanent check in the average advance of food prices remains to be seen.

II

SHELTER

Rents continued to advance between July, 1919, and November, 1919, although for the most part the increases reported were small. In a number of localities they remained stationary, frequently owing to the fact that leases for a year had been signed prior to the period under investigation. No decreases were reported. The average advance in rents the country over, between July, 1919, and November, 1919, taking all conditions into account, was about 8%. This makes a total increase in rents of 38% since the beginning of the war in 1914. Between November, 1918, and November, 1919, the average rise was 15%.[1]

Local agencies such as real estate boards and brokers, chambers of commerce, social organizations and individuals in close touch with rent conditions, reported to the Board from 156 cities. Three hundred and thirty-one schedules were tabulated. These include estimates from practically all of the important cities of the country and from many smaller places. While in the majority of cases more than one report was received from a city, in a number of instances only one estimate was available. The latter, however, was usually from the local real estate board, which is, of course, particularly competent to furnish information regarding changes in rents.

The estimates as to local increases in rents, from which the estimate for the country as a whole was reached, are summarized in Table 2. The percentages of change refer to rents of low- and moderate-priced accommodations, such as cottages, two-family houses and tenements, which are most frequently occupied by wage-earners. Increases for heated apartments and the more expensive houses had usually been greater.

[1] For discussion of rent increases in earlier reports made by the National Industrial Conference Board on changes in the cost of living, see Research Report No. 9, pp. 22–44; Research Report No. 14, pp. 6–10; Research Report No. 17, pp. 5–9; Research Report No. 19, pp. 6–11.

TABLE 2: ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND NOVEMBER, 1919, AND BETWEEN JULY, 1919, AND NOVEMBER, 1919, BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL

(National Industrial Conference Board)

Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]	Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]
Eleven cities where rents increased more than 70%[a] between July, 1914, and November, 1919					
Akron, Ohio	2	10% or less	Los Angeles, Cal.	4	41%–50%
Binghamton, N. Y.	1	11%–20%	Oklahoma City, Okla.	2	10% or less
Canton, Ohio	1	10% or less	Portland, Ore.	4	10% or less
Chester, Pa.	1	No change	St. Joseph, Mo.	3	21%–30%
Denver, Col.	4	11%–20%	Sioux City, Ia.	3	21%–30%
Flint, Mich.	3	10% or less			
Fourteen cities where rents increased 61%–70%[a] between July, 1914, and November, 1919					
Bayonne, N. J.	1	10% or less	Kenosha, Wis.	1	11%–20%
Bellingham, Wash.	2	11%–20%	Omaha, Neb.	1	11%–20%
Birmingham, Ala.	1	21%–30%	Paterson, N. J.	2	11%–20%
Cleveland, Ohio	5	10% or less	Racine, Wis.	1	21%–30%
Danville, Ill.	1	10% or less	Saginaw, Mich.	2	No change
Detroit, Mich.	4	11%–20%	Seattle, Wash.	2	11%–20%
Fort Worth, Tex.	2	10% or less	Spokane, Wash.	3	11%–20%
Nine cities where rents increased 51%–60%[a] between July, 1914, and November, 1919					
Berkeley, Cal.	4	11%–20%	Pueblo, Col.	1	No change
Erie, Pa.	1	11%–20%	South Bend, Ind.	1	10% or less
Hoquiam, Wash.	2	10% or less	Waterbury, Conn.	2	No change
Lowell, Mass.	3	21%–30%	Youngstown, Ohio	3	10% or less
Passaic, N. J.	1	21%–30%			
Fifteen cities where rents increased 41%–50%[a] between July, 1914, and November, 1919					
Bay City, Mich.	1	11%–20%	Lincoln, Neb.	2	11%–20%
Buffalo, N. Y.	4	10% or less	Louisville, Ky.	4	11%–20%
Camden, N. J.	1	10% or less	Milwaukee, Wis.	2	11%–20%
Davenport, Ia.	1	10% or less	Newark, N. J.	1	10% or less
Elizabeth, N. J.	2	11%–20%	New Bedford, Mass.	1	10% or less
Elyria, Ohio	1	31%–40%	New Britain, Conn.	1	10% or less
Jackson, Mich.	1	11%–20%	New York, N. Y.	8	11%–20%
Johnstown, Pa.	2	10% or less			

[a] The percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

TABLE 2: ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND NOVEMBER, 1919, AND BETWEEN JULY, 1919, AND NOVEMBER, 1919 BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL — *continued*

(National Industrial Conference Board)

Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]	Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]
Thirty-eight cities where rents increased 31%–40%[a] between July, 1914, and November, 1919					
Albany, N. Y.	2	10% or less	New Orleans, La.	3	21%–30%
Ann Arbor, Mich.	1	11%–20%	Norfolk, Va.	2	11%–20%
Battle Creek, Mich.	1	10% or less	Oakland, Cal.	3	No change
Charleston, S. C.	1	No change	Pasadena, Cal.	1	No change
Chattanooga, Tenn.	3	11%–20%	Pittsburgh, Pa.	4	11%–20%
Chicago, Ill.	6	11%–20%	Port Huron, Mich.	1	No change
Columbia, S. C.	1	No change	Reading, Pa.	1	10% or less
Columbus, Ohio	5	10% or less	Richmond, Ind.	1	11%–20%
Des Moines, Ia.	1	10% or less	Richmond, Va.	1	10% or less
Duluth, Minn.	2	10% or less	Sacramento, Cal.	1	11%–20%
Evansville, Ind.	2	10% or less	San Antonio, Tex.	4	10% or less
Fort Wayne, Ind.	3	10% or less	Syracuse, N. Y.	3	10% or less
Hoboken, N. J.	2	No change	Tacoma, Wash.	3	No change
Kansas City, Mo.	3	11%–20%	Tampa, Fla.	1	21%–30%
Knoxville, Tenn.	1	10% or less	Toledo, Ohio	2	No change
Lancaster, Pa.	1	11%–20%	Trenton, N. J.	2	10% or less
Lawrence, Mass.	6	10% or less	Troy, N. Y.	1	10% or less
Massillon, Ohio	1	No change	Waukesha, Wis.	1	10% or less
New Haven, Conn.	4	11%–20%	Worcester, Mass.	5	10% or less
Thirty-three cities where rents increased 21%–30%[a] between July, 1914, and November, 1919					
Allentown, Pa.	3	No change	Houston, Tex.	1	10% or less
Atlanta, Ga.	3	No change	Jersey City, N. J.	1	10% or less
Augusta, Ga.	1	10% or less	Kansas City, Kan.	2	10% or less
Baltimore, Md.	5	10% or less	Lafayette, Ind.	1	10% or less
Billings, Mont.	1	11%–20%	Madison, Wis.	1	No change
Bridgeport, Conn.	1	No change	Pawtucket, R. I.	1	No change
Brockton, Mass.	3	11%–20%	Rochester, N. Y.	2	11%–20%
Council Bluffs, Ia.	1	10% or less	Rockford, Ill.	2	No change
Dallas, Tex.	2	11%–20%	Schenectady, N. Y.	2	10% or less
Dayton, Ohio	1	No change	Scranton, Pa.	1	No change
East St. Louis, Ill.	1	No change	Springfield, Ill.	2	10% or less
Elkhart, Ind.	2	No change	Springfield, Mass.	1	10% or less
Everett, Wash.	2	10% or less	Terre Haute, Ind.	2	10% or less
Gary, Ind.	2	10% or less	Utica, N. Y.	3	10% or less
Grand Rapids, Mich.	1	21%–30%	Washington, D. C.	1	No change
Harrisburg, Pa.	3	10% or less	Wilmington, Del.	1	10% or less
Hartford, Conn.	1	No change			

[a] The percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

TABLE 2: ESTIMATED AVERAGE CHANGES IN RENTS PAID BY WAGE-EARNERS IN SPECIFIED CITIES, BETWEEN JULY, 1914, AND NOVEMBER, 1919, AND BETWEEN JULY, 1919, AND NOVEMBER, 1919, BY PERCENTAGE GROUPS WITHIN WHICH RENT INCREASES FALL—*continued*

(National Industrial Conference Board)

Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]	Locality	Number of reports	Percentage of increase, July, 1919—November, 1919 [a]
Twenty-three cities where rents increased 11%–20%[a] between July, 1914, and November, 1919					
Alliance, Ohio	1	No change	Mobile, Ala.	1	10% or less
Altoona, Pa.	1	No change	Peoria, Ill.	2	No change
Boston, Mass.	7	10% or less	Philadelphia, Pa.	3	10% or less
Cambridge, Mass.	4	10% or less	Portland, Me.	1	No change
Champaign, Ill.	1	10% or less	Providence, R. I.	1	No change
Cincinnati, Ohio	10	10% or less	St. Louis, Mo.	3	10% or less
Concord, N. H.	1	10% or less	St. Paul, Minn.	1	11%–20%
Fall River, Mass.	7	10% or less	Salt Lake City, Utah	2	No change
Holyoke, Mass.	2	10% or less	Springfield, Ohio	1	11%–20%
Lynn, Mass.	1	10% or less	Waterloo, Ia.	2	10% or less
Memphis, Tenn.	3	No change	Yonkers, N. Y.	1	No change
Minneapolis, Minn.	1	10% or less			
Thirteen cities where rents increased 10% or less[a] between July, 1914, and November, 1919					
Dubuque, Ia.	1	10% or less	San Diego, Cal.	4	10% or less
El Paso, Tex.	1	10% or less	San Francisco, Cal.	1	10% or less
Great Falls, Mont.	1	[b]No change	Savannah, Ga.	2	No change
Indianapolis, Ind.	3	10% or less	Superior, Wis.	2	No change
Manchester, N. H.	2	10% or less	Wilkes-Barre, Pa.	3	No change
Nashville, Tenn.	2	10% or less	York, Pa.	1	10% or less
Phoenix, Ariz.	2	No change			

[a] The percentages given indicate the group within which falls the average change as estimated on the basis of all replies received, not the range for individual cities.

[b] No change since 1914.

In this table the cities are grouped according to the estimated total increase in rents between July, 1914, and November, 1919. These groups, as well as the estimated changes in rents between July, 1919, and November, 1919, mark the limits within which falls the average change, not the range for the separate cities.

It will be seen from this table that in the great majority of cities from which reports were received, increases in rents between July, 1914, and November, 1919, did not average more than 50%. In New York, the average increase fell between 41% and 50%; in Chicago and Pittsburgh, it was not more than 40%; in Baltimore, it was not more than 30%; in Boston, St. Louis, and Philadelphia, it was not more than 20%. In Cleveland, Detroit and Los Angeles, on the other hand, the advances were in many instances so large that the average was more than 50%. In 34 of the 156 localities from which reports were secured, there were advances in rents averaging over 50%; in 36 they averaged 20% or less. No particular section of the country was characterized by any one tendency as regards rent changes. Large and small increases occurred in all sections in response to peculiar local conditions. It is because rents are so largely a local problem that it is especially difficult to estimate changes in this item for the country as a whole. The figures given take into account large and small increases and represent as accurately as any single figure can, the change in rents which had occurred the country over.

A shortage of houses, especially of the better class moderate-priced accommodations, was everywhere reported, while the cost of building and repairs as well as taxes had continued to rise. The opinion was general that until this situation is relieved, there is very little prospect of rents coming down. Extensive building operations were, however, in progress in many centers.

III

CLOTHING

The average cost of clothing rose 17.5% between July, 1919, and November, 1919. This was a greater advance than obtained for any other item in the family budget and is, moreover, the largest increase for this item in any four months period covered by the Board's studies.[1] Added to the 100% advance prior to July, 1919, it marks an increase of 135% for the entire period from July, 1914, to November, 1919.

In the present investigation, price schedules for 28 types of yard goods and wearing apparel were secured from 195 dry goods and specialty stores in 66 representative cities throughout the country.[2] This is the largest body of data relating to clothing prices thus far assembled by the Board.

No attempt was made to study changes in the cost of clothing with respect to different sections of the country, since previous investigations had indicated that geographi-

[1] Research Report No. 19, p. 12.

[2] The number of stores furnishing schedules from the different cities was as follows:

Atlanta, Ga.	2	Jersey City, N. J.	4	Philadelphia, Pa.	4
Baltimore, Md.	2	Kansas City, Mo.	2	Pittsburgh, Pa.	1
Birmingham, Ala.	3	Lincoln, Neb.	2	Portland, Me.	3
Boston, Mass.	12	Little Rock, Ark.	1	Portland, Ore.	2
Bridgeport, Conn.	5	Los Angeles, Cal.	9	Providence, R. I.	3
Buffalo, N. Y.	7	Louisville, Ky.	3	Richmond, Va.	2
Charleston, S. C.	3	Lowell, Mass.	1	Rochester, N. Y.	2
Chicago, Ill.	6	Lynn, Mass.	4	St. Louis, Mo.	2
Cincinnati, Ohio	4	Manchester, N. H.	1	St. Paul, Minn.	2
Cleveland, Ohio	4	Memphis, Tenn.	3	Salt Lake City, Utah	3
Columbus, Ohio	1	Milwaukee, Wis.	6	San Antonio, Tex.	1
Dallas, Tex.	5	Minneapolis, Minn.	3	San Francisco, Cal.	5
Dayton, Ohio	4	Mobile, Ala.	2	Schenectady, N.Y.	2
Denver, Col.	2	Nashville, Tenn.	2	Scranton, Pa.	3
Des Moines, Ia.	2	Newark, N. J.	3	Seattle, Wash.	3
Detroit, Mich.	4	New Bedford, Mass.	2	Spokane, Wash.	2
Fall River, Mass.	1	New Orleans, La.	4	Springfield, Mass.	2
Fort Worth, Tex.	1	New York, N. Y.	8	Tacoma, Wash.	2
Grand Rapids, Mich.	2	Norfolk, Va.	2	Toledo, Ohio	4
Hartford, Conn.	1	Oklahoma City, Okla.	1	Trenton, N. J.	1
Houston, Tex.	1	Omaha, Neb.	3	Wilmington, Del.	1
Indianapolis, Ind.	4	Peoria, Ill.	1	Worcester, Mass.	2

cal location apparently has no effect on clothing prices. The same article in two stores in the same city might show as great a variation in price changes as the averages for two cities hundreds of miles apart. For the same reason, no attempt was made to weight the figures in accordance with the size of the city. The simple average was used both in the case of prices and of percentages of change in price.

In Table 3 are given average prices in July, 1919, and November, 1919, of goods which sold for a specified price in July, 1914, together with the percentages of increase above the 1914 prices.[1] From these it appears that the average cost of every one of the 28 articles for which comparative prices were secured was at least 100% greater in November, 1919, than in July, 1914, and in many instances the average advance was much larger than this. The range of price increases continued to be very wide.

Yard Goods

Woolens. Average prices of the three types of woolen yard goods for which comparative quotations were secured, serge, poplin and broadcloth, had advanced in about the same proportion since July, 1919, 13% to 15%. For the entire period between July, 1914, and November, 1919, serge costing $1 in 1914 showed the largest advance, 161.9%; the smallest advance was for poplin, priced at $1.50 in 1914, which went up 116%. Broadcloth, which in 1914 was $2 a yard, had increased in price 141%. The most frequent price for serge in November, 1919, was $2.50; poplin was most commonly quoted at $3 and broadcloth at $4.50.

Cottons. The increase up to November, 1919, for percale which had sold for 7½ cents a yard in 1914 was 326.7%, the largest increase for any article for which prices were secured. This represents an average price of 32 cents in November, 1919, although a price of 35 cents was frequently quoted. Gingham, which had sold before the war for 10 cents, and longcloth quoted in 1914 at 12½ cents were also quoted most frequently at 35 cents a yard in November, 1919. The average increase for gingham

[1] In computing average prices, fractions of one-half cent or more have been taken as adding one cent to the price; smaller fractions have been disregarded. For this reason, the average price figures and the percentage figures do not always appear to be in strict accord, since in computing the latter, exact average prices were used.

TABLE 3: AVERAGE RETAIL PRICES OF SELECTED YARD GOODS AND WEARING APPAREL IN NOVEMBER, 1919, AND PERCENTAGES OF INCREASE IN PRICE BETWEEN JULY, 1914, AND NOVEMBER, 1919, AND BETWEEN JULY, 1919, AND NOVEMBER, 1919

(National Industrial Conference Board)

Article	July 1, 1914, price	November 1, 1919, price	Percentage of increase between	
			July, 1914, and Nov., 1919	July, 1919, and Nov., 1919
Woolen Yard Goods				
Serge	$1.00	$2.62	161.9	15.2
Poplin	1.50	3.24	116.0	13.2
Broadcloth	2.00	4.82	141.0	13.3
Cotton Yard Goods				
Percale	.07½	.32	326.7	21.6
Gingham	.10	.34	238.0	17.8
Longcloth	.12½	.34	174.4	17.5
Fruit of the Loom	.15	.39	160.7	17.1
Voile	.25	.55	121.2	15.4
Hosiery				
Men's	.15	.32	108.0	9.9
Women's	.25	.57	126.0	15.1
Knit Underwear				
Men's union suits	.50	1.28	156.8	20.7
Women's vests	.10	.26	163.0	15.6
Muslin Underwear				
Women's combinations	1.00	2.06	106.0	15.1
Suits				
Men's	15.00	34.21	128.1	19.4
Women's	15.00	31.51	110.7	12.0
Overcoats				
Men's	10.00	26.78	167.8	22.6
Women's	10.00	23.90	139.0	13.6
Shirts and Blouses				
Men's work shirts	.50	1.45	189.6	18.1
Men's work shirts	1.00	2.15	115.4	14.3
Men's negligee shirts	1.00	2.24	124.3	18.7
Women's blouses	1.00	2.02	101.6	16.3
Overalls	.75	2.26	200.7	13.8
Shoes				
Men's	3.50	8.42	140.4	20.2
Women's	3.00	8.30	176.3	21.8
Gloves				
Men's dogskin	1.25	2.69	115.2	11.1
Women's cape kid	1.00	2.60	159.8	16.5
Hats				
Men's felt	2.00	4.34	117.0	18.0
Women's velvet	1.50	3.49	132.7	14.1

between July, 1914, and November, 1919, was 238% and for longcloth 174%. For Fruit of the Loom costing 15 cents in 1914, 39 cents was both the average and the most frequent price in November, 1919. The smallest advance for any of the yard goods listed in the questionnaire was for voile, which formerly cost 25 cents and which in November, 1919, was most frequently quoted at 50 cents; the average advance was 121.2%. Between July, 1919, and November, 1919, the price of voile increased 15.4% and that of percale 21.6%.

Hosiery and Underwear

Hosiery. Men's hose selling for 15 cents a pair in 1914 averaged 32 cents in November, 1919. This marks an increase since July, 1914, of 108%. While the most frequent price continued to be 25 cents, there were many quotations at 29 cents and 35 cents. Women's hose priced at 25 cents in 1914 had advanced 126%. Although the price most often quoted was 50 cents, many stores priced them at 59 cents or 65 cents.

Knit underwear. There were an equal number of quotations at $1 and $1.25 in November, 1919, for men's union suits which brought 50 cents in 1914; the average price was $1.28. Women's vests formerly costing 10 cents were most frequently priced at 25 cents, as in July, 1919. The average price was 26 cents, an increase of 15.6% over the average July quotation.

Muslin underwear. Women's muslin combinations selling for $1 in 1914 most frequently brought $2 in November, 1919. The average increase was 106%.

Outer Wear and Furnishings

Suits and coats. Men's suits and coats had advanced in cost more than the same grade of women's suits and coats both since July, 1914, and since July, 1919. The average price for men's suits quoted at $15 in 1914 was $34.21 in November, 1919. For women's suits, also priced at $15 in 1914, the November, 1919, average price was $31.51. The most frequent single quotation, however, was $35 in both cases. Men's and women's coats were each most often quoted at $25 in November, 1919; the average prices were $26.78 and $23.90, respectively. The increase since July, 1919, for men's coats, 22.6%, was the largest reported in that period for any article of clothing for which quotations were secured.

Men's negligee shirts and women's blouses. Men's negligee shirts priced $1 in 1914 brought $2 in 59 stores in November, 1919, and $2.50 in 52 stores. The average advance within this period was 124.3%. Women's blouses selling for $1 in 1914 increased in cost 101.6%. This was the smallest increase for any article of clothing for which comparative quotations were secured.

Men's work shirts and overalls. Men's work shirts which were 50 cents in 1914 advanced more in price than those which had cost $1. The advance of 189.6% since 1914 for the 50-cent shirt was the largest reported for any article of made-up goods except overalls. The most frequently quoted price for this shirt in November, 1919, was $1.50. The $1 shirt, the average price of which had increased 115.4%, was most frequently quoted at $2. An increase of over 200% was reported in November, 1919, in the price of overalls which had cost 75 cents in 1914. The average price was $2.26.

Shoes. The price of men's shoes costing $3.50 in 1914 and of women's shoes costing $3, each averaged more than $8.25 in November, 1919. Women's shoes had gone up 176.3% and men's shoes 140.4%. The increase since July, 1919, for both men's and women's shoes was over 20%.

Gloves. Men's gloves which brought $1.25 in 1914 and women's gloves costing $1 were each most frequently priced $2.50 in November, 1919; the average increase was 115.2% for men's and 159.8% for women's.

Hats. An increase of 18% since July, 1919, and of 117% since July, 1914, was reported for men's felt hats which had cost $2 in 1914. The most frequent prices were $4 and $5. The average price of women's velvet hats selling for $1.50 in 1914 was $3.49 in November, 1919, an advance of 132.7% within the period.

Clothing Budgets

With the average prices in November, 1919, of the separate articles of ready-to-wear clothing as a basis, clothing budgets for one year for a wage-earner and his wife were constructed. These are given in Table 4, together with the average cost of the same articles in July, 1914, November, 1918, and July, 1919. It should be understood that these are trial budgets only, designed to represent the amount of clothing which might be purchased in one year rather than all of the articles necessary for a complete outfit.

TABLE 4: TRIAL BUDGETS OF CLOTHING FOR A MAN AND HIS WIFE FOR ONE YEAR, BASED ON COMPARATIVE PRICES IN JULY, 1914, NOVEMBER, 1918, JULY, 1919, AND NOVEMBER, 1919

(National Industrial Conference Board)

Man's Budget

Article	Cost in July, 1914	Cost in November, 1918	Cost in July, 1919	Cost in November, 1919
Suit	$15.00	$26.50	$28.00	$34.00
Overcoat	10.00	20.00	21.50	27.00
Heavy trousers	3.50	6.50	7.00	8.50
Two shirts	2.00	3.60	3.80	4.50
Three work shirts	[a]1.75	4.40	4.30	4.80
Three pairs overalls	2.25	6.45	5.75	6.75
Shoes and repairs	9.00	15.00	17.75	21.50
Eight pairs hose	1.20	2.25	2.30	2.50
Five sets underwear	[b]3.50	8.05	7.35	8.65
Two nightshirts	1.50	2.70	2.90	3.50
Collars and ties	1.50	2.75	2.85	3.15
Hats, caps and gloves	5.00	8.50	9.25	10.75
Sundries	2.50	5.00	5.25	6.00
All articles	$58.70	$111.70	$118.00	$141.60

Increase, November, 1919, over July, 1914	141.2%
Increase, November, 1919, over November, 1918	26.8%
Increase, November, 1919, over July, 1919	20.0%

Woman's Budget

Article	Cost in July, 1914	Cost in November, 1918	Cost in July, 1919	Cost in November, 1919
Coat or suit	$15.00	$26.25	$28.50	$32.00
Woolen dress	5.00	10.00	10.50	11.75
Woolen skirt	2.00	3.75	4.00	4.50
Two cotton skirts	2.00	4.00	4.00	4.50
Four waists	4.00	6.60	7.00	8.00
Two house dresses	2.00	3.75	3.75	4.50
Three aprons	.90	2.85	2.55	3.00
Shoes, overshoes and repairs	6.65	12.50	15.25	18.50
Hosiery	1.50	3.00	3.00	3.45
Corsets	2.00	3.50	3.75	4.25
Six union suits	[c]3.25	7.25	7.00	8.25
Muslin underwear	3.20	5.85	5.75	6.75
Three petticoats	1.75	3.50	3.25	3.75
Three nightgowns	2.40	4.50	4.30	5.25
Hats	2.00	3.60	4.25	4.75
Gloves	1.50	3.00	3.35	3.75
Sundries	3.00	5.50	5.50	6.50
All articles	$58.15	$109.40	$115.70	$133.45

Increase, November, 1919, over July, 1914	129.5%
Increase, November, 1919, over November, 1918	22.0%
Increase, November, 1919, over July, 1919	15.3%

[a] One at 75 cents, two at 50 cents.
[b] Three at 50 cents, two at $1.
[c] Three at 75 cents, three at 33⅓ cents.

Although no two clothing budgets would necessarily show the same percentages of change in cost, the figures indicated by these budgets, 141.2% increase for men's clothing between July, 1914, and November, 1919, and 129.5% for women's clothing, are as representative as any which can be reached. Since earlier investigations have shown that the average cost of children's clothing changed in about the same proportion as the cost of clothing for adults, no attempt was made to estimate the former separately. The average increase of 135% in the cost of clothing, established on the basis of the budgets for adults, is undoubtedly of wide application among the families of American wage-earners.

The prices of yard goods were not used in making up these budgets. Since yard goods, especially the cheaper grades, frequently advanced in cost more than made-up garments, the percentage of increase in the cost of clothing made at home would be greater than that indicated by the prices of ready-to-wear articles; the actual cost of such home-made garments, however, would be less. It should be noted also that the prices of ready-to-wear articles of the cheaper grades usually advanced more than was the case with goods of a better quality.

Clothing dealers everywhere reported increasing wholesale costs and generally predicted that retail prices of clothing would be higher in the spring of 1920.

IV

FUEL, HEAT AND LIGHT

The average cost of fuel, heat and light combined increased 4% between July, 1919, and November, 1919. The advance in coal prices averaged about 5%, but rates for gas and electricity for domestic use, which represent about one-third of the allowance for this item, had not gone up so much. The total increase for fuel, heat and light combined between July, 1914, and November, 1919, is placed at 48%.[1] The advance since November, 1918, was 6%.

One hundred and fourteen replies were received to questionnaires calling for retail prices of anthracite and bituminous coal in July, 1914, July, 1919, and November, 1919. These came from 42 representative cities in all sections of the country and very fairly reflect the general movement of coal prices. Reports regarding changes in the retail cost of wood, oil, coke and natural gas when used for domestic purposes were collected in less detail. The American Gas Association and the National Electric Light Association supplied estimates regarding changes in the cost of these respective items.

Fuel[2]

Between July, 1919, and November, 1919, increases in the average price of coal varied greatly as between different sections of the country and also as between separate cities. This was particularly true of bituminous coal. In the East, where bituminous coal is but little used as domestic fuel, half of the cities reported no change in price and such increases as occurred were unimportant. In the Middle West and the South, however, where bituminous coal is extensively burned, every city reported an

[1] Earlier estimates of the increase in the cost of this item which, as stated in the respective reports, were of a very general nature, have been reduced as a result of closer analysis and of information developed by more intensive study of the cost of living in specific communities. The change affects the increase in the total budget less than 1%, but gives a truer indication of the change in the cost of the fuel, heat and light item.

[2] Fuel does not include artificial gas.

advance, and in over half of them this was more than 10%. In the Far West, Seattle reported no change and San Francisco 11.5% increase; these figures mark the range of price changes in that section.

Changes in the cost of anthracite were more uniform, ranging from an advance of slightly less than 2% in Buffalo, Rochester, Chicago, Milwaukee, Minneapolis, St. Paul and Atlanta, to slightly less than 9% in Philadelphia, Detroit, Little Rock and San Francisco. Reports from Salt Lake City and Charleston indicated that there had been no change.

Taking all of these facts into account and also considering that increases in the cost of anthracite were greatest where anthracite is most important as fuel and that the same condition was true as regards bituminous coal, the advance in the average cost of coal since July, 1919, is placed at 5%. The total increase between July, 1914, and November, 1919, is estimated at 65%.[1]

TABLE 5: PERCENTAGES OF INCREASE BETWEEN JULY, 1914, AND NOVEMBER, 1919, AND BETWEEN JULY, 1919, AND NOVEMBER, 1919, IN THE RETAIL PRICE OF COAL IN TON LOTS FOR DOMESTIC USE

(National Industrial Conference Board)

Locality	Anthracite				Bituminous coal	
	Chestnut		Stove			
	Percentages of increases between					
	July, 1914, and Nov., 1919	July, 1919, and Nov., 1919	July, 1914, and Nov., 1919	July, 1919, and Nov., 1919	July, 1914, and Nov., 1919	July, 1919, and Nov., 1919
United States . . .	60.5	4.3	63.2	4.3	66.6	9.2
Eastern district . . .	66.7	4.5	70.5	4.4	83.3	3.8
Southern district . .	61.3	4.2	65.1	5.7	80.1	15.5
Middle western district	57.6	4.3	58.7	4.3	72.8	11.4
Far western district .	41.5	3.4	45.1	3.4	43.9	8.0

[1] Average prices of anthracite and bituminous coal as collected by the United States Bureau of Labor Statistics show increases between July, 1914, and July, 1919, as follows: Stove anthracite, 60%; chestnut anthracite, 56.6%; bituminous coal, 48.3%. (*Monthly Labor Review*, September, 1919, p. 87.)

Prices of other fuels, notably wood, coke and natural gas, where reported, indicated that the change in these between July, 1914, and November, 1919, was unimportant.

Light

Figures collected by the American Gas Association show that of 1,017 companies selling artificial gas in the United States, 536 had made advances to domestic consumers between June, 1917, and December, 1919. The average increase among the companies advancing rates was 21%. Included among the 481 companies from which no rate increase was reported were those in some of the largest cities in the country. Thus, while slightly more than half the gas companies reported increased costs to domestic consumers, less than half the population of the country was represented. The American Gas Association, taking all of these circumstances into account, estimates the increase in the cost of gas, if distributed among the total population served, at 6% since June, 1917.

The same tendency seems to have been present in rates for electricity for domestic use. Such increases as had occurred in the cost of electricity had for the most part been for power and for large-scale consumers. The increases in rates for electricity for household use were reported to have been very small.

Recent studies of the actual cost of living made by the Board have indicated that about one-third of the expenditure for fuel, heat and light combined is for gas and electricity and two-thirds is for fuel. On this basis, allowing for an increase of 65% in the cost of fuel and 10% in the cost of light, it appears that the total advance in the cost of fuel, heat and light combined between July, 1914, and November, 1919, was 48%. Earlier figures of the Board showing changes in the cost of this item, which were stated at the time to have been rough approximations, have been corrected in the light of more complete evidence in order to give a truer estimate. The effect on the total budget is negligible.

V

SUNDRIES

The increase in the cost of sundries from July, 1914, to November, 1919, has been placed at 75%, and that since July, 1919, at 7%. This figure was reached somewhat arbitrarily on the basis of estimated average percentages of increase in carfare and the cost of household furnishings, tobacco and confectionery, medical care, reading material, amusements, church contributions, insurance and organization dues.

The most detailed information regarding price changes of the many articles comprising the sundries group was obtained with reference to carfare. In 97 of the 145 cities from which reports were received, fares had advanced since July, 1914, and in 44 of these there had been an increase since July, 1919. The average increase since 1914, roughly weighted according to the size of the city, amounted to less than 40%; the increase since July, 1919, was between 5% and 10%.

It was reported by motion picture exhibitors that the increase in prices of admission to these theaters since July, 1914, had been from 60% to 100% exclusive of the war tax. The advance since July, 1919, had been small. Tobacco and confectionery had made large advances in cost since 1914, in some cases up to 100%. Part of this increase had come since July, 1919. The cost of medical care had in many places doubled since 1914. The average cost of household furnishings increased well over 100%. Daily newspapers which had been one cent in 1914 were almost universally two cents in November, 1919. Organization dues had in some instances been raised. Larger contributions to the church were required and more life insurance was needed to provide an equal measure of protection.

Although expenditures for the different articles in the sundries group may be distributed in a large variety of ways, the estimated increase of 75% between July, 1914, and November, 1919, is representative.

VI

THE COMPLETE BUDGET

The percentages of increase between July, 1914, and November, 1919, in the cost of the separate items in the family budget of average wage-earners are estimated to have been as follows:

Food	92%
Shelter	38%
Clothing	135%
Fuel, heat and light	48%
Sundries	75%

To determine the total increase in the cost of living, these percentages were weighted according to the importance of each item in the budget as a whole. Various studies of the budgets of over 11,000 families, made by the United States Bureau of Labor Statistics and other authoritative agencies, have shown that before the war the average proportion of their income spent for food was approximately 43%; 18% was spent for shelter; 13% for clothing; 6% for fuel, heat and light; and 20% for sundries.[1] The average increase between July, 1914, and November, 1919, in the cost of the separate items combined on this basis was between 80% and 85%, as shown in Table 6.

TABLE 6: PERCENTAGES OF INCREASE BETWEEN JULY, 1914, AND NOVEMBER, 1919, IN THE COST OF LIVING IN AVERAGE AMERICAN COMMUNITIES, BY SEPARATE BUDGET ITEMS

(National Industrial Conference Board)

Budget items	Relative importance in family budget	Increase in cost between July, 1914, and November, 1919	Increase as related to total budget
All items	100.0%		82.2%
Food	43.1%	92%	39.7%
Shelter	17.7%	38%	6.7%
Clothing	13.2%	135%	17.8%
Fuel, heat and light	5.6%	48%	2.7%
Sundries	20.4%	75%	15.3%

[1] Recent studies indicate that the average distribution of items in the family budget in 1918 was somewhat different from that based on pre-war expenditures. In estimating changes in cost since a given date, however, the distribution at that date should be used as a basis.

In Table 7 are given the percentages of change in the cost of living by separate budget items from June, 1918, November, 1918, March, 1919, and July, 1919, to November, 1919, together with the total percentages of increase in cost between July, 1914, and the specified dates, as brought out in the five surveys made by the Board. These estimates, together with estimates as to changes in the cost of living prior to 1918, based on less complete data, are shown graphically in the chart facing page 1.[1]

TABLE 7: PERCENTAGES OF INCREASE IN THE COST OF LIVING BETWEEN JULY, 1914, JUNE, 1918, NOVEMBER, 1918, MARCH, 1919, JULY, 1919, AND NOVEMBER, 1919, IN AVERAGE AMERICAN COMMUNITIES, BY SEPARATE BUDGET ITEMS

(National Industrial Conference Board)

Budget items	Percentages of increase between								
	July, 1914, and June, 1918	June, 1918, and Nov., 1919	July, 1914, and Nov., 1918	Nov., 1918, and Nov., 1919	July, 1914, and March, 1919	March, 1919, and Nov., 1919	July, 1914, and July, 1919	July, 1919, and Nov., 1919	July, 1914, and Nov. 1919.
All items	52.2	*19.7*	65.0	*10.4*	60.5	*13.5*	72.2	*5.8*	82.2
Food	62	*18.5*	83	*5*	75	*10*	90	*1*	92
Shelter	15	*20*	20	*15*	22	*13*	28	*8*	38
Clothing	77	*33*	93	*22*	81	*30.5*	100	*17.5*	135
Fuel, heat and light [a]	35	*10*	40	*6*	42	*4*	42	*4*	48
Sundries	50	*17*	55	*13*	55	*13*	63	*7*	75

[a] The earlier estimates of increase in the cost of this item, which, as stated in the respective reports, were of a very general nature, have been reduced as a result of closer analysis and of information developed by more intensive study of the cost of living in specific communities. The change affects the increase in the total budget less than 1%, but gives a truer indication of the changes in the cost of the fuel, heat and light item.

Families differ somewhat in the apportionment of their incomes, but with any reasonable allocation and the

The percentages of increase above July, 1914, prices at the middle of each year prior to 1918 are estimated to have been as follows:

	1915	1916	1917
All items	.5	8.7	31.3
Food	[a]	11	46
Shelter	[a]	1.5	5
Clothing	3	20	43
Fuel, heat and light	2	4	26
Sundries	[a]	4	17

[a] No change.

For discussion of these figures see Research Report No. 17, p. 29.

percentages of increase given for the separate items, the percentage of increase in the total cost of living would be not more than two or three points higher or lower than 82%. It should be borne in mind, however, that these percentages of increase are averages for the country as a whole and that increases in the cost of the separate items, rent, particularly, inevitably vary somewhat from place to place. But a difference of 5% in the increase in rent would make a change of approximately only 1% in the total budget. Changes in the cost of fuel, heat and light also vary considerably, but the percentage of the total budget required for this item is so small as to affect the total increase but slightly.[1]

It should be emphasized that estimates of changes in the cost of living made on the basis of fluctuations in wholesale prices are not comparable with the conclusions reached in this study, nor do they offer a reliable indication of retail price changes. The index numbers of Dun, Bradstreet and the New York Times *Annalist* show fluctuations in market conditions but afford no real indication of necessary changes in family expenditures. Nor are index numbers of retail food prices, taken by themselves, indicative of the trend of the total cost of living, since food represents less than one-half of the total family budget. The only accurate measure of changes in the cost of living is one based on retail prices weighted according to the average proportion of the family budget spent for each item.

[1] A comparison of the results of the cost-of-living surveys made by the National Industrial Conference Board with those of the United States Bureau of Labor Statistics indicates that while the former show an advance of 72% in the cost of living between July, 1914, and July, 1919, the latter show an advance of 75% between July, 1914, and June, 1919. Thus the only two country-wide studies of this most important subject, although made by methods dissimilar in many respects, show results in substantial accord. (*Monthly Labor Review*, October, 1919, pp. 1–8.)

A recent estimate of changes in the cost of living between 1913 and October, 1919, made by the United States Bureau of Labor Statistics, and forwarded to the Board in advance of publication in the *Labor Review*, places the increase at 82.1% for the period. This compares with the estimate of 82.2% increase between July, 1914, and November, 1919, as reached by the National Industrial Conference Board. The figures of the Bureau of Labor Statistics, for a small part of the period, were based on wholesale prices, and the allocation of expenditures to the separate budget items was of 1918 rather than of 1913.

Publications
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National Industrial Conference Board
15 Beacon Street, Boston, Mass.

Research Report No. 1. WORKMEN'S COMPENSATION ACTS IN THE UNITED STATES — THE LEGAL PHASE. 60 pages. April, 1917. Revised, August, 1919. $1.00.
Research Report No. 2. ANALYSIS OF BRITISH WARTIME REPORTS ON HOURS OF WORK AS RELATED TO OUTPUT AND FATIGUE. 58 pages. November, 1917. $1.00.
Research Report No. 3. STRIKES IN AMERICAN INDUSTRY IN WARTIME. 20 pages. March, 1918. 50 cents.
Research Report No. 4. HOURS OF WORK AS RELATED TO OUTPUT AND HEALTH OF WORKERS — COTTON MANUFACTURING. 64 pages. March, 1918. $1.00.
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